



BOROUGH OF WIDNES

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# ANNUAL REPORT

OF THE

MEDICAL OFFICER

OF HEALTH

FOR

1945



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TO THE CHAIRMAN AND MEMBERS OF THE  
HEALTH COMMITTEE

MRS. HANLEY AND GENTLEMEN,

I have the honour to present to you my Annual Report, which deals with the Vital Statistics and Sanitary Administration of the Borough of Widnes for the year 1945. In accordance with the instructions of the Minister of Health, the report will be an "ordinary report," and is therefore but a brief summary of the Health and Sanitation of the district.

The Vital Statistics are satisfactory with the exception of the Infantile Mortality rate. The sudden rise in the latter rate during the year is most disturbing, particularly as it follows a year when the Infantile Mortality rate was the lowest on record. Statistical tables giving the various causes of infant mortality are included in the report. The deterioration of environmental conditions, the industrial employment of married women and the difficulty in obtaining trained health visitors are factors which do not favour a low Infantile Mortality rate.

The Maternity and Child Welfare services were fully extended and 13 day-nurseries were in operation.

The incidence of diphtheria is the lowest on record, and is the direct result of the immunisation of such a high percentage of the child population. Few towns have been able to secure such a high percentage, and I desire to express my appreciation of the support I have received from the clergy, medical practitioners, teachers and other agencies. A scheme for the re-immunisation of children will be put into operation during the early months of 1946 with a view to maintaining the immunity from this disease.

Two houses were built during the year by private enterprise. The housing shortage is extremely acute and the provision of a large number of houses is undoubtedly the most urgent requirement. A site in the Ditton area was prepared to accommodate 150 temporary houses and it is a matter for regret that none were made available during the year. A contract for the completion of 166 houses on the Lowerhouse Lane scheme was approved, but it is doubtful whether any will be ready for occupation until the end of 1946. Roads and sewers were completed on the Page Lane Estate which will accommodate 100 permanent houses. Negotiations for the acquisition of land in other parts of the town were entered into. There is, therefore, no special difficulty in the way of providing suitable sites for new houses. The houses to be erected on the Lowerhouse Lane estate are mainly of a large type and will relieve the overcrowding which is due to the occupation of small houses by large families. It is gratifying to know that the majority of the houses to be erected on other estates are to contain 3 bedrooms of adequate size. A great deal of overcrowding in the Borough has been caused by the preponderance of houses containing only 2 bedrooms. A large number of houses are in a state of disrepair and it has been extremely difficult to secure the necessary materials and labour in order to render such dwellings reasonably fit for habitation. The absence of maintenance work on property during the War years has greatly increased the work of the Sanitary Department, and it is now essential that an additional sanitary inspector be appointed, not only to cope with the inspection of houses, but to carry out the provisions of the Food and Drugs Act and the supervision of factories relative to the emission of black smoke. Many houses are now in such a state that they cannot be made fit at reasonable cost and it is hoped that the Minister will allow local authorities to commence action under Sections 11 and 25 of the Housing Act, 1936 with regard to such dwellings.

The work of the rodent operatives continued during the year in accordance with the scheme of the Minister of Food. The maintenance treatment of sewers was carried out for the first time and the Divisional Rodent Officer who supervised the work was completely satisfied with the results.

I desire to take this opportunity of thanking the chief officials of the Corporation and those members of the municipal staff who have unstintingly assisted me during a difficult period.

I wish, also, to acknowledge my appreciation of the cordial support afforded me by the members of the Health Committee and the Council.

I am,

Your obedient Servant,

ALBERT JONES,

*Medical Officer of Health.*



## GENERAL STATISTICS.

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Area of Borough in acres	...	...	...	...	6,178
Population at Census, 1931	...	...	...	...	40,619
,, Estimated 1945	...	...	...	...	42,030
Density of Population ( <i>i.e.</i> , No. of persons per acre)	...				6.7
No. of Inhabited Houses (1931 Census)	...	...			8,641
Rateable Value	...	...	...	...	£223,229
Sum represented by 1d. Rate	...	...	...	...	£875

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## EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

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Number of Births : Males 466, Females 438	...	...	904
Birth-rate per 1,000 of the Population	...	...	21.5
Number of Deaths : Males 285, Females 219	...	...	504
Death-rate per 1,000 of the Population	...	...	11.9
Excess of Births over Deaths	...	...	400
Number of Deaths of Infants (under the age of one year)	...		73
Infantile Mortality per 1,000 Births	...	...	80
Deaths from Influenza	...	...	5
Death-rate from Influenza per 1,000 of the Population	...		0.12
Death-rate from Cancer	...	...	2.18
Death-rate from Phthisis	...	...	0.64
Maternal Mortality Rate per 1,000 Births	...	...	4.31
Number of women dying in consequence of child birth—			
From Sepsis	...	...	1
Other causes	...	...	3
Deaths from Measles (all ages)	...	...	0
,, ,,, Whooping Cough (all ages)	...	...	0
,, ,,, Diarrhoea (under 2 years of age)	...	...	24
Percentage of Total Deaths occurring in Public Institutions			43.9

## ANALYSIS OF VITAL STATISTICS.

## POPULATION—

The population returns since 1861 are given below :—

Year.	Population.	Inhabited houses	Average per house
1861	6,893	1,150	5.99
1871	14,359	2,519	5.66
1881	24,918	4,994	5.0
1891	30,011	5,121	5.86
1901	28,580	5,350	5.34
1911	31,544	6,102	5.16
1921	38,879	7,437	5.22
1931	40,619	8,534	4.63

The Registrar-General's estimate of the population for the year 1945 was 42,030. Although I am certain that the population is higher, I have adopted this figure in calculating the birth-rate and the mortality rates which are based on population. The taking of a census is overdue and will be the only means of securing accurate vital statistics.

## BIRTHS—

	Total.	Males.	Females.	
Legitimate ... ..	815	412	403	} Birth Rate (R.G.) 21.5
Illegitimate ... ..	89	54	35	
Birth-rate for England and Wales	...	...	...	16.1

The following table gives the number of births registered in the Borough, and indicates the wards in which they occurred :—

WARD.	Males.	Females.	Total.	No. of Births which were illegitimate.	Birth-rate per 1000 estimated population.
Farnworth ....	80	80	160	8	16.2
Halton .....	77	68	145	12	24.6
Simm's Cross .	105	82	187	18	21.1
Victoria .....	65	71	136	22	21.4
Waterloo .....	28	39	67	11	22.9
West Bank ....	33	32	65	5	22.0
Ditton .....	78	66	144	13	27.9
Whole Borough	466	438	904	89	21.5

## ILLEGITIMATE BIRTHS—

The percentage of births, which were illegitimate, during each of the past 14 years is as follows :—

1932	...	3.2 per cent.	1939	...	2.4 per cent.
1933	...	2.0 per cent.	1940	...	4.7 per cent.
1934	...	3.0 per cent.	1941	...	4.1 per cent.
1935	...	2.9 per cent.	1942	...	5.2 per cent.
1936	...	2.5 per cent.	1943	...	6.0 per cent.
1937	...	3.1 per cent.	1944	...	5.6 per cent.
1938	...	2.4 per cent.	1945	...	9.8 per cent.

## CAUSES OF, AND AGES AT, DEATH DURING YEAR 1945—

CAUSES OF DEATH.	All Ages	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.
All Causes—Certified ...	490	67	4	3	8	18	42	113	235
„ Uncertified	14	6	—	—	—	—	—	4	4
Typhoid and Paratyphoid Fevers ... ..	—	—	—	—	—	—	—	—	—
Measles ... ..	—	—	—	—	—	—	—	—	—
Scarlet Fever ... ..	—	—	—	—	—	—	—	—	—
Whooping Cough ... ..	—	—	—	—	—	—	—	—	—
Diphtheria ... ..	—	—	—	—	—	—	—	—	—
Influenza .. ...	5	1	—	—	—	—	—	1	3
Encephalitis ... ..	2	—	—	—	—	—	1	1	—
Cerebro-Spinal Fever ...	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis .	27	—	—	—	—	6	7	10	4
Other Tuberculous diseases	6	—	1	—	2	3	—	—	—
Syphilis ... ..	—	—	—	—	—	—	—	—	—
Cancer, malignant disease	92	—	—	—	2	—	9	27	54
Diabetes ... ..	3	—	—	—	—	—	1	—	2
Cerebral Hæmorrhage, etc	25	—	—	—	—	—	—	10	15
Heart Disease ... ..	101	—	—	1	2	1	6	27	64
Other Circulatory Diseases	9	—	—	—	—	—	—	1	8
Bronchitis ... ..	40	3	—	—	—	—	3	14	20
Pneumonia (all forms) ...	20	9	1	—	—	1	—	4	5
Other Respiratory Diseases	3	—	—	—	—	—	—	1	2
Peptic Ulcer ... ..	7	—	—	—	—	—	2	4	1
Diarrhoea, etc., under 2 years ... ..	24	23	1	—	—	—	—	—	—
Appendicitis ... ..	2	—	—	—	—	1	—	—	1
Other Digestive diseases	7	—	—	—	—	—	1	2	4
Acute and Chronic Nephritis ... ..	7	—	—	—	—	—	—	4	3
Puerperal Sepsis ... ..	1	—	—	—	—	—	1	—	—
Other Puerperal causes	3	—	—	—	—	—	3	—	—
Congenital Debility, Premature Birth, Malformations, etc. ...	33	33	—	—	—	—	—	—	—
Suicide ... ..	3	—	—	—	—	—	2	1	—
Road Traffic Accidents ...	2	—	—	1	—	—	—	1	—
Other Violence ... ..	15	2	1	1	1	3	—	4	3
All other causes ... ..	67	2	—	—	1	3	6	5	50
TOTALS ... ..	504	73	4	3	8	18	42	117	239

The following is a summary of the deaths of persons belonging to Widnes, which occurred in institutions during the year 1945 :—

Widnes Accident Hospital	...	...	...	3
„ Isolation Hospital	...	...	...	—
„ Maternity Home (Infants 1)	...	...	...	1
Liverpool Northern Hospital	...	...	...	1
„ Children's Infirmary (Infants 2)	...	...	...	2
„ Royal Infirmary	...	...	...	3
„ Southern Hospital	...	...	...	—
„ Public Assistance Hospitals	...	...	...	—
„ Maternity Hospital (Infants 1)	...	...	...	1
„ Babies Hospital (Infants 2)	...	...	...	2
„ Cancer	...	...	...	1
„ Women's	...	...	...	1
„ Eye and Ear	...	...	...	—
County Mental	...	...	...	4
„ Sanatoria	...	...	...	5
Warrington Infirmary	...	...	...	—
Other Hospitals (Infants 1)	...	...	...	3
Whiston Infirmary (Infants 31)	...	...	...	135
„ Institution	...	...	...	60
TOTAL	...	...	...	222

The following table summarises the Vital Statistics of the Borough :—

	Per 1,000 of Population.				Per 1,000 Births.	
	Birth Rate.	Death Rate.	Death Rate from Tuberculosis of Respiratory System.	Death Rate from Cancer	Maternal Mortality Rate.	Rate of Deaths under 1 year.
Mean of 5 years—						
1940-1944	22.5	12.9	0.70	1.68	1.62	75
Year—						
1944	24.01	11.8	0.53	1.87	0.0	51
1945	21.5	11.9	0.64	2.18	4.31	80
Increase or Decrease in 1945 on Five Years' Average	— 1.0	— 1.0	— 0.06	+ 0.50	+ 2.69	+ 5
1940-1944						
Previous Year	— 2.5	+ 0.1	+ 0.11	+ 0.32	+ 4.31	+ 29



# *MORTALITY FROM ALL CAUSES—*

The following table shows the distribution of deaths in the various Wards of the Borough :—

WARD.	Under 1	1-2	2-5	5-15	15-25	25-45	45-65	over 65	Total
Farnworth ..	8	1	1	2	1	5	23	72	113
Halton .....	14	—	1	—	2	4	18	33	72
Simm's Cross	16	—	1	2	5	9	22	33	88
Victoria .....	10	2	—	2	4	8	21	30	77
Waterloo ....	9	—	—	—	1	2	15	13	40
West Bank ..	7	1	—	—	4	8	6	18	44
Ditton .....	9	—	—	2	1	6	12	40	70
TOTALS ...	73	4	3	8	18	42	117	239	504

The general death rate was 11.9 per thousand, as compared with 12.9 for the preceding five year period. The death rate for England and Wales was 11.4.

# INFANTILE MORTALITY.

The Causes of Deaths of Infants during 1945 are recorded in the following table :—

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Wks and under 3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under 1 Year
All Classes, Certified ...	19	5	5	5	34	13	11	4	5	67
,, Uncertified ...	4	—	—	—	4	1	—	—	1	6
Whooping Cough .....	—	—	—	—	—	—	—	—	—	—
Measles .....	—	—	—	—	—	—	—	—	—	—
Syphilis .....	—	—	—	—	—	—	—	—	—	—
Influenza .....	—	—	—	—	—	1	—	—	—	1
Bronchitis .....	—	—	1	1	2	1	—	—	—	3
Pneumonia (all forms) ...	—	—	—	—	—	3	5	1	—	9
Tuberculosis .....	—	—	—	—	—	—	—	—	—	—
Enteritis and Diarrhœa ...	—	—	4	3	7	5	4	3	4	23
Digestive Diseases .....	—	—	—	—	—	—	—	—	—	—
Other Congenital Causes .	11	1	—	—	12	2	—	—	—	14
Premature Birth .....	12	4	—	1	17	2	—	—	—	19
Violence .....	—	—	—	—	—	—	2	—	—	2
Other Causes .....	—	—	—	—	—	—	—	—	2	2
<b>TOTALS</b> .....	<b>23</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>38</b>	<b>14</b>	<b>11</b>	<b>4</b>	<b>6</b>	<b>73</b>

The following table gives the Infant Mortality per 1,000 Births in the Wards of the Borough :—

Year.	Farnworth.	Halton.	Simms Cross	Victoria.	Waterloo.	West Bank.	Ditton.	TOTAL.
1935	55	55	76	81	93	62	61	69
1936	64	88	69	114	156	98	54	89
1937	46	131	76	125	96	66	101	92
1938	63	58	60	62	90	111	73	68
1939	49	87	87	53	92	89	63	72
1940	55	68	81	135	164	104	41	88
1941	72	120	100	107	83	55	111	96
1942	46	96	64	81	35	155	49	70
1943	55	97	53	110	74	63	105	76
1944	98	29	42	61	119	55	45	51
Average								
1935-44	60	83	71	93	100	86	70	77
<b>1945</b>	<b>50</b>	<b>97</b>	<b>86</b>	<b>74</b>	<b>134</b>	<b>108</b>	<b>62</b>	<b>80</b>

It will be seen from the Tables that the number of deaths of children under 1 year of age was 73, which represents an Infantile Mortality rate of 80 per 1,000 births as compared with the rate of 76 for the preceding five year period. The Infantile Mortality rate for England and Wales was 46 per 1,000 births.

The sudden rise in the Infantile Mortality rate during the year as compared with 1944 was largely due to Gastro-Enteritis. There were 23 deaths under 1 year of age from this disease as compared with 6 in 1944 and 12 in 1943. This is the largest number recorded since 1913. During the years prior to 1914 a large number of deaths from this disease occurred during the summer months but there was no epidemic during 1945. Indeed, the deaths were fairly evenly distributed throughout the year, a greater proportion than usual occurring under 1 month, and a large percentage died in hospital.

The Ward distribution of the deaths under 2 years of age from diarrhoea and enteritis was as follows :—

Farnworth	...	...	2	Waterloo	...	...	...	6
Halton	...	...	4	West Bank	...	...	...	2
Simms Cross	...	...	4	Ditton	...	...	...	2
Victoria	...	...	4					

It has always been emphasised that statistics relating solely to one year for a town of the size of Widnes should not be used for purposes of comparison. A period covering at least five years is the minimum from which any deductions can be made. The following Table will, therefore, afford a useful basis for comparison :—

#### ANALYSIS OF CAUSES OF INFANTILE MORTALITY IN SUCCESSIVE QUINQUENNIA 1905 - 1944.

Death Rates per 1,000 Births.

Years	Total deaths under 1 year of age	Infec- tious dis- eases (ex- cluding Tuber- culosis)	Tuber- cular dis- eases	Ner- vous dis- eases	Respir- atory dis- eases	Diges- tive diseases (includ- ing Diarr- hoea)	Malfor- mations Prema- ture Birth, Maras- mus, etc.	Other causes
1905-1909	... 154	11	5	19	21	45	45	8
1910-1914	... 134	9	3	15	20	39	42	6
1915-1919	... 112	10	0.7	8	23	25.3	42	3
1920-1924	... 92	7.3	0.2	7	19	16	36	6.5
1925-1929	... 79	8	0.5	6	17	11	31.5	6
1930-1934	... 66	3	0.9	4	13	5.1	37	3
1935-1939	... 78	3	0.9	5.1	14	8	41	6
1940-1945	... 76	6	0.6	2.4	19	13	31	4



The chief points which the Table illustrates may be summarised as follows :—

1. There was a steady decline in the Infantile Mortality rate until the end of 1934.
2. The increased rate during the period 1935-1939 was largely due to congenital causes.
3. During the period 1940-1944, while there was a decline in the rate from congenital causes, there was a definite increase in the number of deaths from respiratory, digestive and infectious diseases. An increase in the number of deaths from these diseases during the War period is not surprising.

The chief individual cause of infant mortality is premature birth and other congenital conditions, and the majority of such deaths occur during the early weeks of life. During the year 1945 the weight of every child at birth was reported on the notification card and infants weighing  $5\frac{1}{2}$  lbs. or less are regarded as being prematurely born. This is the first year during which the Minister of Health has required this information and, therefore, there are no comparative data. The figures for the year may be summarised as follows :—

Place of Birth.	Percentage of Premature Infants.	Percentage of Premature Infants which died.
Home ... ..	8	29
Maternity Home ... ..	5	—
County Hospital, Whiston ... ..	7	43
Other Hospitals ... ..	8	100

The figures show that the mortality rate among premature infants is greater in the case of those born in hospital. This is largely due to the fact that the hospital staffs are inadequate to give the time which is necessary in endeavouring to save the lives of such infants. Hot-water bottles and any other necessities are issued to midwives for the use of premature babies born at home; such infants are very frequently visited and the help of relatives is secured. Prematurity is a complicated problem and much thought is being given to measures which might be adopted for its prevention. There is every reason to hope that there will be some reduction locally as a result of greater ante-natal supervision.

The recent increase in the number of infant deaths from respiratory and digestive diseases is not likely to be reduced to any appreciable extent until housing conditions are improved. The facilities provided locally at the Child Welfare centres are extremely good, but many mothers who do not take advantage of the Maternity and Child Welfare services are those for whom such services are primarily intended. The appointment of a pediatrician would be of



advantage to the staff of the County Hospital and to local practitioners but, unfortunately, there are, in the Merseyside area, an insufficient number of children's specialists. The Infantile Mortality rate for the Borough compares favourably with other towns in South West Lancashire, so there exists a common problem. The fact, however, that the Infantile Mortality rate is much in excess of that for England and Wales must serve as a stimulus to greater effort.

VITAL STATISTICS—WARDS IN THE BOROUGH—

	Farn- worth	Halton	Simms Cross	Vic- toria	Water- loo	West Bank	Ditton	Whole Boro'
Population .....	9855	5900	8900	6350	2925	2950	5150	42030
No. of Houses .....	3010	1718	2358	1381	685	785	1616	11553
Density of Population ...	6.0	6.4	24.0	23.6	14.4	19.0	2.2	6.7
Birth-rate per 1000 .....	16.2	24.6	21.1	21.4	22.9	22.0	27.9	21.5
Death-rate per 1000 .....	11.5	12.2	9.9	12.1	13.7	14.9	13.6	11.9
Infantile Death-rate per 1000 Births .....	50	97	86	74	134	108	62	80
Death-rate from Cancer	2.0	2.2	1.6	2.5	1.4	3.0	3.1	2.18
Death-rate from Diarrhoea per 1000 Births ...	12.5	27.6	21.4	29.4	90	30.7	13.9	25.4
Death-rate from Phthisis per 1000 .....	0.7	0.7	0.7	0.6	0.3	0.7	0.6	0.64
Total Deaths .....	113	72	88	77	40	44	70	504
Total Births .....	160	145	187	136	67	65	144	904

*PROFESSIONAL NURSING IN THE HOME—*

The arrangements made with the Widnes Queen's Nursing Association for the home nursing of children suffering from measles and whooping-cough have operated normally.

*MIDWIFERY—*

The number of midwives practising in the area was 9.

*LABORATORY FACILITIES—**Bacteriological Examinations :*

The number of specimens examined in 1945 was :—

Nasal swabs	...	71	Others	...	...	7
Throat swabs	...	282				

The number of Bacteriological Examinations carried out in 1944 was 286.

*HOSPITALS—*

(a) The number of patients admitted to the Isolation Hospital during 1945 was 301 as compared with 250 during 1944. The cases admitted during the year consisted of 253 cases of Scarlet Fever; 14 cases of Diphtheria; 1 case of Measles; 12 cases of suspected Diphtheria; and 23 cases of Diphtheria carriers. There was one death in the hospital during the year from Diphtheria, but the patient did not belong to Widnes.

(b) A summary of the cases treated at the Accident Hospital during 1945 was :—

Admitted during 1945	...	...	...	...	...	159
Out-Patients during 1945	...	...	...	...	...	2146
Re-Visits, Out-Patients during 1945	...	...	...	...	...	11343
Operations	...	...	...	...	...	132
X-Ray Examinations	...	...	...	...	...	1302
Deaths	...	...	...	...	...	4

The cases treated in 1944 were : Admissions 154; out-patients 1541; and operations 127.

*MATERNITY HOME—*

The total number of cases admitted to the Home during the year was 261 as compared with 268 during 1944. Of the cases admitted during the year, 131 were residents of the Borough.

*AMBULANCE FACILITIES—*

The Local Authority has provided one motor ambulance for the removal of cases of Infectious Disease to Hospital, and three for the removal of accident and other cases to Hospitals within or without the Borough.

The amount of work done during 1945 by the motor ambulances which are used for non-infectious cases, was :—

Patients conveyed to hospitals 694; patients conveyed from hospitals 542; mileage 12,986. The number of patients conveyed to and from hospitals during 1944 was 577 and 512 respectively and the total mileage was 12,219.

#### *CLINICS AND TREATMENT CENTRES—*

The Child Welfare and school clinics functioned normally during the year.

The record of home visits paid by the health visitors during the year was :—

To Expectant Mothers : First Visits...	236	Total Visits...	521
Infants under 1 :	,, ,,	890	,, ,, ... 4136
Children 1 - 5 :	— — —	,, ,,	... 6085

An Ante-Natal Clinic is conducted by Mr. P. Malpas every Tuesday afternoon. The specialist voluntarily conducts an ante-natal clinic at the Maternity Home immediately he has finished his session at the Health Centre. The number of ante-natal cases which attended the clinics was 836, as compared with 885 during 1944, and 737 during 1943. The total attendances during the year were 2,528. The attendances at this clinic have increased to such an extent during the past two years that the provision of two sessions per week is essential. It was, however, impossible to obtain the services of an obstetrician during the year, and the introduction of an extended service had to be deferred until 1946.

It was found necessary to arrange for 9 cases to be admitted to the Liverpool Maternity Hospital during the year because of disabilities or defects discovered at the clinic. The number of cases admitted during 1944 was 10. In addition 238 cases were admitted to the Whiston County Hospital, as compared with 207 during 1944 and 152 during 1943. It will be seen, therefore, that the County Hospital is being extensively used for maternity cases. Since the year 1937, when the number was 24, there has been an annual increase in the number of cases admitted. During the year 1945, 42% of the total births occurred in institutions.

From its inception the work at the clinic has not been confined to ante-natal supervision. Patients suffering from disabilities which are the result of childbirth, or from other diseases peculiar to women, are examined, and where necessary are admitted either to the Women's Hospital, Liverpool, or to the County Hospital for operative treatment. 102 such cases were examined during the year 1945. The services of the specialist are also at the disposal of the medical practitioners for cases of difficult labour and puerperal disorders, and full advantage is taken of this provision.



A scheme for the examination and treatment of crippled children was put into operation in January, 1926. The Orthopaedic surgeon visits Widnes fortnightly to direct the necessary treatment. Children requiring operative treatment are admitted to the Children's Infirmary at Liverpool, the country hospital at Heswall, or the Widnes Accident Hospital.

*TUBERCULOSIS DISPENSARY—Chapel Street—*

This is provided by the County Authority, and the Tuberculosis Officer attends on Monday mornings, Wednesday evenings, and Friday afternoons.

The Mass Radiography Unit possessed by the County Authority has only been available for a limited number of Widnes residents. Several Units with the requisite trained staff will be needed for use in the Administrative County if a satisfactory scheme for the early detection of Pulmonary Tuberculosis is to be instituted.

PREVALENCE OF AND CONTROL OVER INFECTIOUS  
DISEASE.

(i) *NOTIFIABLE DISEASES DURING THE YEAR—*

DISEASE.	Total cases notified.	Cases admitted to Hospital.	Total Deaths.
Diphtheria ... ..	14	14	—
Scarlet Fever ... ..	289	253	—
Dysentery ... ..	7	—	1
Puerperal Pyrexia ... ..	—	—	1
Malaria ... ..	1	—	—
Pneumonia ... ..	53	—	20
Erysipelas ... ..	10	—	—
Ophthalmia Neonatorum ... ..	5	2	—
Enteric Fever ... ..	—	—	—
Cerebro-spinal Fever ... ..	1	1	—
Measles ... ..	21	1	—
Whooping Cough ... ..	93	—	—
Infantile Paralysis ... ..	—	—	—
Tuberculosis—			
(a) Pulmonary ... { M .....	23	—	18
{ F .....	21	—	9
{ Total ...	44	—	27
(b) Non-Pulmonary { M .....	12	—	4
{ F .....	7	—	2
{ Total ...	19	—	6



## (ii) ANALYSIS OF NOTIFIABLE DISEASES IN AGE GROUPS—

CASES NOTIFIED.														
DISEASE.	Total Cases at all Ages.	Years.												
		Under 1.	1 to 2.	2 to 3.	3 to 4.	4 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 35.	35 to 45.	45 to 65.	65 and over.	
Diphtheria .....	14	—	—	—	1	—	7	1	1	2	2	—	—	
Scarlet Fever .....	289	1	15	13	34	26	139	43	10	4	3	1	—	
Measles .....	21	2	2	3	1	2	5	2	3	1	—	—	—	
Whooping Cough .	93	11	15	15	17	15	18	1	—	—	1	—	—	
Cerebro-Spinal Fever .....	1	—	—	1	—	—	—	—	—	—	—	—	—	
Malaria .....	1	—	—	—	—	—	—	—	—	1	—	—	—	
Pneumonia .....	53	—	—	2	4	3	6	4	4	9	6	11	4	
Erysipelas .....	10	—	—	—	—	—	—	—	—	1	2	7	—	
Ophthalmia .....	5	5	—	—	—	—	—	—	—	—	—	—	—	
Dysentery .....	7	—	—	1	—	—	1	—	—	—	—	3	2	
Pulmonary T.B.														
M.	23	—	—	—	—	—	—	—	—	11	3	7	2	
F.	21	—	—	—	—	—	—	—	5	13	2	1	—	
Non-Pulmonary T.B.														
M.	12	—	—	1	1	1	1	4	3	1	—	—	—	
F.	7	—	—	—	—	1	2	1	2	—	—	—	1	
TOTALS .....	557	19	32	36	58	48	179	56	28	43	19	30	9	

OPHTHALMIA NEONATORUM. Five cases were notified during the year, two of which were admitted to hospital. The remaining cases received treatment at home. No injury to vision resulted among any of the cases.

## SCARLET FEVER—

The number of cases of Scarlet Fever notified during the preceding four years was: 1941—98; 1942—261; 1943—463; 1944—241. There were no deaths from this disease during the year.

## DIPHTHERIA—

The number of cases of Diphtheria notified during the year was the lowest recorded since the use of bacteriological methods for diagnostic purposes. There were no deaths during the year from this disease.

The following Table gives the incidence of this disease during the past 10 years.

Year	No. of Cases	No. of Deaths	Year	No. of Cases	No. of Deaths
1935	96	2	1940	200	6
1936	110	2	1941	160	9
1937	87	2	1942	95	4
1938	240	6	1943	30	2
1939	180	3	1944	23	0

None of the fatal cases recorded in the above Table had been immunised.

It will be seen from the Table which records Infectious Diseases in age groups that 5 of the cases notified during the year were over 15 years of age, whereas in former years the disease was almost entirely confined to children under that age.

Of the 14 cases which occurred during the year, 10 had not been immunised. These figures clearly demonstrate the value of immunisation. There is, however, reason to believe that, when children are immunised at an early age, the immunity, to some extent, becomes less as they grow older, and it is therefore proposed to ask parents to consent to their children receiving one further dose of the immunising agent when they attain the age of 5 years. It is confidently expected that this procedure will create a life-long immunity.

A Scheme providing free immunisation against Diphtheria was put into operation in January, 1941.

The number of children immunised during the past five years is as follows :—

Date of Birth		1941	1942	1943	1944	1945	Total
1927 to 1929	...	1541	46	82	—	—	1669
1930	...	494	30	123	3	—	650
1931	...	489	29	145	2	1	666
1932	...	505	27	182	3	5	722
1933	...	490	48	170	7	3	718
1934	...	506	62	173	5	5	751
1935	...	454	99	225	10	5	793
1936	...	328	176	238	16	7	765
1937	...	270	269	241	13	12	805
1938	...	287	316	201	39	18	861
1939	...	236	301	169	77	52	835
1940	...	107	411	218	80	45	861
1941	...	—	367	298	101	39	805
1942	...	—	—	393	258	60	711
1943	...	—	—	—	437	263	700
1944	...	—	—	—	—	575	575
TOTALS	...	5707	2181	2858	1051	1090	12887

The percentage of children immunised between the ages of 1 and 4 inclusive was 90 and that of children attending school was 97. A great deal of effort has been needed to secure such an excellent response. The number of parents who persistently refuse to have their children immunised is diminishing, but it is a matter for regret that many postpone immunisation until their children are of school age. An outbreak of diphtheria was threatened in an institution accommodating 155 boys. The institution was immediately visited subsequent to a notification being received that a severe case of diphtheria had occurred and another boy was found to be suffering from the disease. All the children were examined daily; nasal and throat swabs were taken; the re-immunisation of those previously immunised was carried out; serum was administered to those not previously immunised together with primary immunisation. No secondary cases occurred, but 19 carriers were isolated. The presence in a resident institution of 60 un-immunised children, many of them under 5 years of age, might have resulted in a serious outbreak, particularly in view of the fact that the organism found in the two positive cases was of the gravis type.

**TUBERCULOSIS.** The number of cases of Tuberculosis and of all deaths from the disease during 1945 will be found in the following table :—

Age Periods.	New Cases.				Deaths.			
	Pulmonary M.	Non-Pulmonary F.	Pulmonary M.	Non-Pulmonary F.	Pulmonary M.	Non-Pulmonary F.	Pulmonary M.	Non-Pulmonary F.
Years								
0-1	—	—	—	—	—	—	—	—
1-5	—	—	3	1	—	—	1	—
5-10	—	—	1	2	—	—	—	—
10-15	—	—	4	1	—	—	1	1
15-20	—	5	3	2	1	1	1	1
20-25	1	7	1	—	—	4	1	—
25-35	10	6	—	—	2	2	—	—
35-45	3	2	—	—	3	—	—	—
45-55	3	1	—	—	6	1	—	—
55-65	4	—	—	—	3	—	—	—
65 - upwards	2	—	—	1	3	1	—	—
TOTALS	23	21	12	7	18	9	4	2
	44		19		27		3	



The following Table gives the incidence of Tuberculosis during the past 30 years :—

Annual Average		Pulmonary Tuberculosis		Non-Pulmonary Tuberculosis	
		Case rate per 1,000 of population	Death rate per 1,000 of population	Case rate per 1,000 of population	Death rate per 1,000 of population
1915/1919	...	2.06	1.31	1.01	0.25
1920/1924	...	1.72	1.02	1.20	0.21
1925/1929	...	1.66	0.85	1.27	0.25
1930/1934	...	1.26	0.9	0.82	0.19
1935/1939	...	0.8	0.58	0.61	0.16
1940/1944	...	0.93	0.71	0.52	0.14

It will be observed that the incident and the death rates from Pulmonary Tuberculosis steadily declined from 1915 to 1939 and that they increased during the War years. The latter circumstance occurred everywhere and was not surprising. A further diminution cannot be expected until overcrowding is abated and insanitary dwellings are demolished.

It will also be seen that the incident and the death rates from non-pulmonary Tuberculosis have also steadily declined. This disease is mainly caused by the consumption of infected milk. The pasteurisation of milk is, therefore, the chief means of prevention. A new pasteurising plant was nearly completed during the year and when it is in full operation there will be an increase in the amount of pasteurised milk being delivered in the Borough. It is, however, hoped that within a reasonable time the whole of the milk supply will be either pasteurised or obtained from T.T. or accredited herds.

## SANITARY CIRCUMSTANCES OF THE AREA.

### WATER SUPPLY—

The water supply of the Borough is obtained by pumping from deep wells in the sandstone. 4 samples were analysed by the Public Analyst and 4 by the Bacteriologist to the City of Liverpool and were found to be of excellent quality. The chlorination of water supplies was commenced in November, 1941.

### CLOSET ACCOMMODATION—

There are 97 privy middens, but they are situated in the rural parts of the Borough, and cannot be converted owing to the absence of adequate sewers. Apart from the existence of a few waste water closets, the remaining houses are provided with fresh water closets.



*REFUSE REMOVAL—*

This work is carried out entirely by the Highway Committee, and motor transport is mainly used. There are 44 dry ashpits and 97 ashpits attached to privies. The remaining houses in the Borough are provided with portable bins, but it has been impossible to secure adequate supplies to replace defective ones.

*SANITARY INSPECTION OF THE DISTRICT—*

A record of the work of the Sanitary Department is as follows :—

Defects or Nuisances : No. Discovered	...	1357
No. Abated	...	1297
No. of Notices served : Informal	...	961
Statutory	...	113
No. of Legal Proceedings taken	...	1
No. of Premises visited	...	4883

Premises kept under observation.	Number of Premises.	Number of Inspections.
Factories, sanitary accommodation	125	173
Bakehouses ... ..	19	105
Slaughterhouses ... ..	1	1
Milkshcps ... ..	62	262
Other Shops ... ..	—	337
Cowsheds ... ..	22	44
Common Lodginghouses ...	5	157
Visits to premises where cases of Infectious diseases have occurred	356	492
No. of premises disinfected after cases of Infectious Diseases ...	382	—
No. of articles disinfected by steam disinfector ... ..	8312	—

*SMOKE ABATEMENT—*

The degree of atmospheric pollution has been markedly increased during the war years, but steps to effect an improvement could not be carried out. Serious nuisance, however, was created by the emission of large quantities of grit from the chimneys of an electric generating station. As a result of action taken by the Local Authority, grit collectors were installed and in a great measure the nuisance has been abated. If, however, the collectors are not regularly emptied by the boiler attendants, the emission of grit results. The installation of grit arresters would have obviated this. Many factories regularly allow the emission of black smoke for long periods from their chimneys and one is not satisfied that the quality of fuel is the sole cause. The training of boiler-firemen, the installation of additional

boilers and the modernisation of plant would materially reduce atmospheric pollution. Efforts made by an officer of the Ministry of Fuel and Power and by the sanitary inspectors to reduce the emission of black smoke have been largely unavailing, and the Minister of Health has been requested to sanction the making of bye-laws relative to the emission of black smoke.

#### ERADICATION OF BED BUGS—

138 houses belonging to the Local Authority and 12 private houses were treated during the year because of verminous infestation. This was carried out by an employee of the Local Authority and various insecticides were used including DDT and gammexane. The latter substances are proving to be very efficient.

In addition, 382 houses were disinfected by an employee of the Isolation Hospital. The steam disinfector at the latter institution was extensively used; the number of articles treated was 8,312 as compared with 9,285 during 1944.

#### RODENT CONTROL—

Three whole-time rodent operatives are employed by the Local Authority and the following is a summary of the work carried out during the year.

Premises		Number treated	Bait Applied (lbs.)	Poison Bait Applied (lbs.)	Estimated Destruction	Bodies found
Sewers	...	1527	1758 $\frac{3}{4}$	136 $\frac{1}{4}$	3572	236
	(man-holes)					
Houses	...	184	139	22 $\frac{1}{2}$	656	124
Other Premises		24	482	119 $\frac{1}{2}$	2850	201

#### INSPECTION AND SUPERVISION OF FOOD.

##### (a) MILK SUPPLY—

The number of dairymen, other than cow-keepers, on the register is 33. One dealer's licence for the bottling of T.T. milk, one for the distribution of T.T. milk and three for the distribution of Pasteurised milk were issued. There are 22 dairy farms in the Borough. Mr. P. T. Lindsay, veterinary officer to the Ministry of Agriculture, carried out the inspection of the cows.

Two samples of milk were sent for bacteriological examination and one was found to contain B.Coli in .01 cc. Owing to the Laboratory being unable to carry out many biological tests for Tuberculosis, only one sample was sent, a negative result being obtained.

(b) *MEAT*—

The amount of meat condemned as unfit for human consumption comprised :—Beef  $612\frac{1}{2}$  lbs.; bacon 21 lbs.; tripe 150 lbs.; tongue 11 lbs.; tinned meat, 210 lbs.; ox heads 2; sausage 3 lbs.

There is one licensed slaughter-house.

(c) *OTHER FOODSTUFFS*—

Other foodstuffs condemned comprised :—Fish, 90 tins; vegetables, 73 tins; milk, 81 tins; jam, 67 tins; syrup, 8 tins; cheese, 39 lbs.; sugar, 34 lbs.; butter, 25 lbs.; margarine, 35 lbs.; dates, 79 lbs.; cereals, 10 lbs.; flour, 12 lbs.; tea, 17 lbs.; raisins, 1 lb.; dried egg, 1 lb.; dessert powder, 520 doz. pkts.

The following samples were analysed by the Liverpool City Analyst :—

Milk ... ..	24	Jam ... ..	1
Butter ... ..	1	Ice Cream ...	3
Lard ... ..	1		

None of the samples were found to be below the legal standard.

## HOUSING.

*Number of New Houses erected during the year—*

(a) Total (including numbers given separately under b)	...	...	...	...	2
(i) By the local authority	...	...	...	...	Nil
(ii) By other bodies or persons	...	...	...	...	2
(b) With State assistance under the Housing Acts :					
(i) By the local authority	...	...	...	...	Nil
(ii) By other bodies (included under (a) (ii) above)	...	...	...	...	2

*Inspection of Dwelling-Houses during the year—*

1. (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) ... ..	1280
(b) Number of inspections made for the purpose	3148
2. (a) Number of dwelling-houses (included under sub-head 1 above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 and 1932 ...	284
(b) Number of inspections made for the purpose	312



3.	Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation ... ..	28
4.	Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation ... ..	126

*Remedy of Defects during the year without Service of Formal Notice—*

Number of defective dwelling-houses rendered fit in consequence of informal action by the local authority or their officers ... ..	320
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*Action under Statutory Powers during the year*

(a) Proceedings under sections 9, 10 and 16 of the Housing Act, 1936 :	
(1) Number of dwelling-houses in respect of which notices were served requiring repairs	Nil
(2) Number of dwelling-houses which were rendered fit after service of formal notices :—	
(a) By owners ... ..	Nil
(b) By local authority in default of owners	Nil
(b) Proceedings under Public Health Acts :	
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied ... ..	816
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—	
(a) By owners ... ..	734
(b) By local authority in default of owners	Nil
(c) Proceedings under sections 11 and 13 of the Housing Act, 1936 :	
(1) Number of dwelling-houses in respect of which Demolition Orders were made ...	Nil
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders ... ..	Nil



## (d) Proceedings under section 12 of the Housing Act, 1936 :

(1)	Number of separate tenements or underground rooms in respect of which Closing Orders were made ... ..	Nil
(2)	Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit ... ..	Nil

*Housing Act, 1936—Part IV—Overcrowding—*

(a)	Number of new cases of overcrowding reported during the year ... ..	85
(b) (i)	Number of cases of overcrowding relieved during the year ... ..	16
(b) (ii)	Number of persons concerned in such cases	107







